

Title (en)

SELF-LOCKING MULTI-SIZE CARTRIDGE EXTRACTION UNIT

Title (de)

SELBSTVERRIEGELNDE EXTRAKTIONSEINHEIT FÜR KARTUSCHEN IN VERSCHIEDENEN GRÖSSEN

Title (fr)

UNITÉ D'EXTRACTION DE CARTOUCHE MULTIDIMENSIONNELLE AUTOBLOQUANTE

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Application

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Abstract (en)

An extraction unit (10) for extracting cartridges (1a;1b) of two different heights (ha;hb) comprises a seat (11,12,13;15) for receiving any of such cartridges (1a;1b) for extraction thereof in the seat. The seat is delimited by a first part (11,12,13) and second part (15) that are relatively movable between a cartridge extraction position and a cartridge loading and/or ejection position. The first part (11,12,13) has a first portion (11,12) and a second portion (13) that are relatively movable to delimit a cavity (12') having selectively:- a first depth (da) for receiving a cartridge (1a) of the first height (ha); and- a second depth (db) for receiving a cartridge (1b) of the second height (hb),the first part (11,12,13) has a lock (112',132,132',142') for locking the first and second portions (11,12,13) when the delimited cavity (12') has the first depth (da) or the second depth (db). Such extraction unit (10) further comprises a mechanical sensor (14) that senses the height (ha;hb) of a cartridge (1a;1b) and that controls the lock (112',132,132',142') to lock or unlock the first and second portions (11,12,13) when the sensor is actuated by a cartridge of first height (ha) or of second height (hb).

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Citation (applicant)

- WO 9847418 A1 19981029 - MEDITERRANEEENNE CAFES [FR], et al
- WO 2005004683 A1 20050120 - NESTEC SA [CH], et al
- EP 1721553 A1 20061115 - PERFECT STEAM APPLIANCES LTD [HK]
- EP 1659547 A1 20060524 - LOCATI ANTONIO [IT]
- US 3260190 A 19660712 - LEVINSON DAVID J
- WO 2005072574 A1 20050811 - BSH BOSCH SIEMENS HAUSGERAETE [DE], et al
- WO 2006023309 A2 20060302 - CARRIER COMM REFRIGERATION INC [US], et al
- US 6966251 B2 20051122 - YOAKIM ALFRED [CH]
- EP 1566126 A1 20050824 - FLAMA FABRICA DE LOUCAS E ELEC [PT]
- EP 0730425 A1 19960911 - EUGSTER FRISMAG AG [CH]
- EP 0862882 A1 19980909 - CMA SPA [IT]
- EP 1219217 A1 20020703 - SGL ITALIA SRL [IT]
- EP 1480540 A1 20041201 - CIE MEDITERRANEEENNE DES CAFES [FR]
- EP 1635680 A2 20060322 - TERMOZETA SPA [IT]
- EP 1669011 A1 20060614 - SAEKO INTERNAT GROUP S P A [IT]
- EP 1774878 A1 20070418 - NESTEC SA [CH]
- EP 1776026 A1 20070425 - SGL ITALIA SRL [IT]
- EP 1893064 A1 20080305 - SEB SA [FR]
- FR 2424010 A1 19791123 - WITTENBORG POUL [DK]
- US 4760774 A 19880802 - LIN SHENG-CHI [TW]
- US 5531152 A 19960702 - GARDOSI GIANCARLO [IT]
- US 7131369 B2 20061107 - GANTT TIMOTHY D [US], et al
- US 2005106288 A1 20050519 - BLANC JEAN-PIERRE [FR], et al
- US 2006102008 A1 20060518 - LIN YU-YUAN [TW]
- WO 2005002405 A2 20050113 - TERMOZETA SPA [IT], et al
- WO 2005016093 A1 20050224 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
- WO 2006005756 A1 20060119 - SGL ITALIA SRL [IT], et al
- WO 2006066626 A1 20060629 - MARTEX HOLLAND B V [NL], et al
- WO 2007135136 A1 20071129 - NESTEC SA [CH], et al
- EP 1208782 A1 20020529 - NESTLE SA [CH]
- EP 12187716 A 20121009
- EP 12187717 A 20121009
- EP 12187718 A 20121009
- EP 12189153 A 20121019
- EP 1764014 A1 20070321 - NESTEC SA [CH]
- WO 2009074550 A2 20090618 - NESTEC SA [CH], et al
- WO 9813099 A1 19980402 - BECTON DICKINSON CO [US], et al
- CH 605293 A5 19780929 - NESTLE SA
- EP 1299022 A1 20030409 - NESTLE SA [CH]
- EP 2068683 A1 20090617 - BIALETTI IND SPA [IT]
- WO 2008037642 A2 20080403 - NESTEC SA [CH], et al
- WO 2009043630 A2 20090409 - NESTEC SA [CH], et al
- WO 2012025258 A1 20120301 - NESTEC SA [CH], et al
- WO 2012025259 A1 20120301 - NESTEC SA [CH], et al
- EP 0512470 A1 19921111 - NESTLE SA [CH]

- WO 0200073 A1 20020103 - NESTLE SA [CH], et al
- WO 0235977 A1 20020510 - NESTLE SA [CH], et al
- EP 0512468 A1 19921111 - NESTLE SA [CH]

Citation (search report)

- [A] EP 1208782 A1 20020529 - NESTLE SA [CH]
- [A] EP 2409608 A1 20120125 - NESTEC SA [CH]
- [A] WO 2011121125 A1 20111006 - BSH BOSCH SIEMENS HAUSGERAETE [DE], et al
- [A] US 8109200 B2 20120207 - HANSEN NICK [GB]

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